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Proposed Core Hypothesis/Question Justification

Social Environment Working Group

Policies and Programs

I. Proposed Core Hypothesis/Question

A. Policies and programs that buffer families from risks, instability, and hardship will have positive effects on child health and development.

B. Variations in policies and programs by state and by size of community contribute to child health differentials across place.

II Workgroup: Social Environment

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IV. Public health significance

A. Overview

The health and well being of both individuals and families are heavily influenced by social policies and programs that either facilitate or hinder access to resources. Social policy is modifiable, changing over time in response to political, social, and economic pressures and constraints. As a major component of the social environment, it is imperative to include policy in a study of environmental impacts of child health. For example, quality and quantity of health care coverage in the U.S. are determined by numerous factors including income, employment, insurance coverage, and proximity to service providers. Each of these is shaped by public policies directly through programs that create services or indirectly through programs that provide greater ability to access services. Thus, whether children and their families have insurance, the source of insurance, cost of coverage, extent of coverage, etc. are important factors in determining their health care access and use. Public programs such as Medicaid provide insurance coverage for low income individuals when private sources are not available. Alternatively, the lack of coverage for persons who do not meet means-tested criteria and who do not have access to health insurance through employment or other private means may mean that such individuals fail to receive adequate health care. A child with a chronic condition such as asthma who does not have either public or private health insurance is unlikely to regularly receive the kind of preventive care that can control the debilitating effects of this disease. Of course, coverage alone is not adequate to insure utilization (Currie and Gruber 1996), but it's a prerequisite. These programs become important predictors or independent variables in a study of child health and development outcomes in general and specific outcomes such as childhood asthma, obesity, and

depression. Finally, there may be differences in quantity and quality of care by type of coverage.

While virtually every aspect of the social environment is influenced by public policy, we will focus on policies that result in specific programs that can be hypothesized to diminish or buffer risks to health and development or whose absence may increase risk.

B. Independent variables**:**

Specifically we will consider income support and safety net programs, including both cash and in kind benefits, food stamps, WIC, and medical insurance; child care and education programs; housing; and transportation. Each of these has clear connections to child health and development; each has been the focus of sustained public policy at federal, state, and local levels; and because they have relatively small numbers and proportions of the population participating at any given time, each requires a large sample, longitudinal study to fully determine the affects of availability, knowledge, and use of these programs.

1. *Income support and safety net programs:* Income support and safety net programs for low income families influence healthy development and access to health care, especially preventive care that promotes child health and development in general and that affects types of treatment options available. The programs considered are the basic safety net programs in the U.S. that provide income support directly or that supplement income through in-kind benefits. TANF and the EITC are basic income maintenance programs for low income families; food stamps augment income and provide food security for low income households; WIC supplements the diets of pregnant women and infants. Although largely federally funded, most of these programs vary by state and in some cases, local jurisdictions, in how they are administered, who is eligible, amount of benefits, time limits on eligibility, take up rates, and types of obstacles to use. State and local variation has become even more critical with the advent of welfare reform that has placed lifetime time limits on receipt of cash assistance and through devolution has introduced huge variation in programs across jurisdictions. Therefore, it is critical to understanding the impacts of these programs to have a study that includes extensive geographic information in the data, to have a sufficiently large sample to be able to analyze results by poverty status, program use, state and rural-urban residence, and to have data collected over the life course in order to determine cumulative effects as well as impacts of changing programs and use patterns.

2. *Health insurance:* As described above, access to health insurance is a primary determinant of medical care. It is important to determine if source and type of health care coverage influences the likelihood of accessing care. Medicaid and SCHIP provide insurance to children and some parents who lack other coverage. With the advent of welfare reform, many states have extended some form of health coverage to low income families above the poverty line and who are not eligible for other cash benefits as well as to other family members. However, there is wide variation in the forms these programs take, as well as recipients' knowledge, access, use, and ability to find providers. These

vary by state, region, and residence with many low income groups in rural areas unable to use benefits even when they are eligible.

3. *Child care and education:* As growing numbers of mothers join the labor force at all income levels, and as welfare reform increases the number of very low income employed mothers, there is both expanded use and need for child care facilities. States vary in the types of subsidies provided and the standards for certification of child care facilities and qualifications of providers. Many states subsidize and certify child care as part of their welfare reform packages. However, there is great variation in availability, quantity, and quality of facilities, ranging from early childhood development centers (both profit and nonprofit) to home placement with friends, family, or unrelated providers. Availability varies by location and by income. For example, in many rural areas, no agency based child care is available regardless of ability to pay, while in urban areas, more options may be available but dependent on income. A large body of research documents lasting effects of early childhood education on subsequent academic achievement. The advent of large numbers of families requiring and using early child care provides an opportunity to determine long term and cumulative effects from different types and programs.

Similarly, at an older age, school based programs may influence child health and development beyond academic readiness and achievement. Nutrition programs such as subsidized school lunches are an obvious example; however, here too there is great policy and program variation by place. The existence of school nurses and social workers may have significant impacts on detecting and preventing disease and other risks to safety and welfare. In some poor rural counties, simple interventions such as head lice detection and remedial measures have had enormous impact on school attendance and test scores. Also, long bus rides as are common in consolidated rural school systems, or in urban school districts using busing for diversity and integration purposes, may adversely affect children's health and school attainments.

In general, state and local jurisdictions vary in school policy initiatives ranging from curricular requirements to accountability efforts, incentives and disincentives for health and mental health screenings, availability of third-party coverage for school based health and mental health services, and policies that govern what types of health services can be provided in school settings, student smoking, and the promotion of junk food in school cafeterias and vending machines. A large sample is necessary to determine impacts of child care and school based policies as they vary across time and place in availability and use.

4. *Housing policy:* Housing policies that help shape the availability and quality of housing will influence health, safety, and development of children (Katz, Kling, and Liebman 2001). The availability of rent subsidies, ownership assistance, and the type of housing stock varies by place. The availability of federal, state, and local housing subsidies are often the primary determinants of whether low-income families will have access to housing. In more urbanized cities such as Boston, Chicago, and San Francisco, the high cost of housing and the scarcity of available housing units creates a significant

barrier to affordable housing for low-income families. Poor families without the support of housing subsidies often spend as much 40 to 60 percent of their monthly income on rent. (Wilson 1987; Danziger and Weinberg 1994). In poor rural areas, subsidized housing is often scarce to nonexistent, there are few housing codes and even less enforcement. Consequently, a large amount of housing is substandard quality, in very bad shape. In fast growing tourism and rural amenity areas, low and middle income households are often priced out of the housing market by affluent in-migrants, and here too, subsidized housing is hard to find. A disproportionate share of family resources spent on housing costs effectively limits the amount of resources that can be spent on other basic family needs such as food, clothing, and education.

Poor quality housing has obvious potential to adversely affect child health outcomes through increased exposure to potential asthma and allergy triggers and through creating unsafe environments that increase stress and injury risk and reduce potential for adequate exercise. Location of housing also makes a difference: crime and violence pose constant threats to the physical safety and security of children and adolescents living in low-income inner-city housing developments. Homelessness increases all forms of risk. A large longitudinal sample is necessary to investigate impacts of episodes of homelessness, shelter use, and availability and use of housing subsidies.

5. *Transportation policy:* For families in urban, suburban, and rural communities, access to transportation is vital to meeting the regular demands and responsibilities of family life. For low-income families in particular, the lack of reliable and affordable transportation is a regular obstacle that limits both social and economic opportunities. Poor families often can not afford to purchase and maintain their own vehicle, which forces them to rely on public transportation. For instance, transportation is one of the primary obstacles to employment and access to health and social services for welfare recipients. . In rural areas where people may live in dispersed locations, affordable private transportation and public transportation options are even more limited. Even in large urban areas, public transportation may be expensive, erratic, and inefficient. Moreover, parents and adults in low-income families are more likely to have jobs with non-standard work hours (e.g., graveyard and swing shifts), which do not coincide with the typical hours of operation for most forms of public transportation. Therefore, the availability of dependable transportation and specifically, programs to subsidize private transportation (as have been initiated in many places as part of welfare reform) or the existence and affordability of public transportation have significant implications for child health, development, and welfare.

C. Dependent variables:

The objective of the NCS is to assess factors and processes affecting child health and development outcomes. Three specific indicators – asthma, obesity, mental health, and cognitive development – illustrate outcomes of interest. Detailed discussions of the incidence and development of these outcomes can be found in other working group and subgroup hypotheses. Their importance for this hypothesis is that the policies and programs described above have the potential to either increase or decrease direct risk of

exposure to these threats to health or to increase or decrease access to preventive and remedial care. For example:

- *Food and Nutrition.* Programs that increase food security may directly improve nutrition and therefore decrease likelihood of obesity. There currently is no research that documents direct effects of programs such as WIC and food stamps on obesity, but there is research showing connections to specific child health outcomes such as birth weight, anemia, and immunizations (Carlson and Senauer 2002). A large cohort longitudinal study will permit investigation of short and long term effects of program use. School nutrition programs may have similar effects.
- *Medical Coverage.* Medical coverage provides care that may lessen episodes and severity of asthma attacks. There is a large body of research investigating environmental and community influences on asthma morbidity including the built environment and housing stock (Wright and Fisher 2002; Wright et al. 1998). Housing policies may determine quality of available shelter that influence exposure to health threats such as asthma.
- *Mental Health.* Lack of coverage for mental health care may increase risk, seriousness, and debilitating consequences of episodes of depression and other mental health problems. Lack of transportation prevents access to programs and services. This is especially problematic in places that lack public transportation and lack health care facilities such as many remote rural areas.
- *Cognitive Development.* In addition to a large body of evidence linking Head Start use to positive cognitive outcomes, new studies show that very early childhood experience in Early Head Start also has a significant impact on cognitive development and parenting. (Love et al., 2002)

There is ample evidence that both health outcomes and policies and programs vary dramatically by place – by state and size of community. In short, whether the measure is asthma, obesity, mental health, or cognitive development, there is good evidence that social policies shape health outcomes, but there is relatively little understanding of the specific pathways or exact mechanisms by which these processes occur.

V. Justification for a large, prospective, longitudinal study

A. General:

Use of social welfare programs tends to be episodic, affects only a small proportion of the population at any given point in time, and varies greatly by social, spatial, and demographic characteristics. In order to have reliable and stable estimates of impacts of any particular program availability or use, let alone effects of multiple and combinations of exposures, it is necessary to have a very large sample. This is especially critical given the need to examine variation in policies and programs by states and by types of communities, especially rural and urban locations. Very large changes in social policy affecting program design and availability have recently been implemented via welfare reform legislation. Although there are current studies that examine income and poverty status of leavers, no studies have adequately looked at child health outcomes. While it is too late to track how this social experiment affects child health and welfare from its inception, it is possible to examine the impact of variability across place and time in these

policies. This requires a study population large enough to detect these effects followed over time.

B. Time sequencing, repeated measures, and prospective longitudinal study: Use of social welfare programs tends to be episodic; different programs have different importance across the life course (for example childcare vs. education or use of WIC vs. food stamps vs. school lunch programs); outcomes are developmental and inherently longitudinal. In order to see how program availability and use impacts the development of health and development outcomes, it is necessary to collect data over time. Prospective data are necessary, because much of the relevant information and detail would be lost or unavailable in retrospective data collection. New data collection is necessary in order to determine current and future policy impacts.

C. Large size is crucial, since policies vary by state and community. Only a very large sample will have sufficient power to enable investigation of small incidence of program use across different social groups in different locations. It is not possible to examine state variation or real urban-rural differences (as opposed to metropolitan-nonmetropolitan variation) without a very large number of cases, selected to represent states and rural-urban differences. Similarly, large size is necessary to understand the effects of policy packages and interactions across policies. For example, job programs don't work in the absence of effective childcare subsidies. Child care subsidies do not predict the quality of child care available.

VI. Scientific Merit

The very large scope of social policy and its expression in myriad programs that vary across state and local jurisdictions means that no one model, theory, or set of empirical findings can explain the impact of policy on child health and development. Programs in each of the policy domains have the potential to directly increase resources or reduce barriers to access and use of services that can impact child health and development in general and specific outcomes such as asthma, obesity, mental health and cognitive outcomes. While the specific pathways will vary by policy area and type of program, as well as population and place, the overall process is that program use directly impacts health and development outcomes and indirectly impacts them through income supports and poverty reduction. A very large longitudinal study can help determine how program packages combine to determine health outcomes. Furthermore, the spatial variation in policies and their implementation in specific programs provide a natural laboratory for investigating the efficacy and efficiency of different policy approaches.

An exhaustive review of previous studies of policy effects is not attempted here. As noted above, WIC participation has been linked to improved nutrition, lower prevalence of low birthweight, lower neonatal mortality, and iron deficiency anemia, and higher levels of general health (Owen and Owen, 1997; Corman et al., 1987; Rose et al; 1998; Arcia et al, 1990; Metcoff et al, 1985; Basiotis, et al., 1987). Expansions in Medicaid eligibility have been linked to lower infant mortality and low birth weight (Currie and Gruber, 1996) and to reductions in acute health conditions and functional limitations among white, but not black and Hispanic, children (Lykens and Jargowsky, 2002). On the other hand, provision of services via managed care vs. fee-for-service under Medicaid appears to have had few consequences for children's health (Long and

Coughlin, 2001). Children's health insurance programs similar to SCHIP have been found to reduce unmet need for health services (Feinberg et al., 2002). "Safety net" programs, such as Aid to Children with Dependent Families and other income maintenance programs, have been found to improve birth weight in some instances (e.g., Currie and Cole, 1993; Kehrer and Wolin, 1979).

Policies affecting the workplace may also influence child health through effects on parental resources and behaviors. Policies relating to pregnancy leave (Yilmaz 2002), the availability of paid sick leave, family health insurance, and other benefits, and the ability to take leave to care for sick family members (Heymann et al, 1996; Heymann and Earle, 1999) have an effect on breastfeeding and the working parents' care of sick children. Housing policies were recently linked to health outcomes in the Moving to Opportunity study, a housing-mobility experiment in which a random sample of families in public housing were offered the opportunity to move to low-poverty neighborhoods. In this study, the incidence of asthma attacks was reduced among the movers group compared to those not given the opportunity to move (Katz et al, 2001).

Studies of policy effects that are based on observational data face a number of scientific challenges, because individual families' access to and use of policy-based resources is often confounded with other determinants of health and well-being. States and communities may differ in unobserved ways that are related both to whether they put specific programs and policies in place and the health of their populations. Sources of such unobserved heterogeneity may include, for example, political conservatism, wealth, and diversity. Also, health issues often drive policy: when making decisions about policy and program investments, local communities and states are guided by their vision of what health problems are most visible and costly in their populations. At the family level too, eligibility for and use of programs are in part driven by the presence of health problems. Research that seeks to measure the effects of policy must be based in models that can separate these selection effects from the actual policy and program effects.

Finally, family behavior responds to the presence and conditions of policies and programs in ways that may either strengthen or weaken their effects on health. For example, families receiving transfer payments may share these payments with needy persons outside the family. Food obtained through the WIC program may go to ineligible family members. Publicly funded programs may substitute for investments parents would have made in any case, or they may stimulate new investments that would not have occurred in the absence of the program. Such tradeoffs will influence the impact of policies and programs on health and need to be studied in the context of research on program impact.

VII. Innovative Research

Given the large numbers of changes and experimentation introduced by welfare reform legislation and implementation, a large study such as the NCS provides the opportunity to systematically examine outcomes of social policies and programs. The focus of the NCS on child health fills a serious void in knowledge in this area.

The NCS would also provide the opportunity to systematically compare the effectiveness of different approaches to same goals, for example impacts of type of medical care coverage on preventive care, or length of time limits to cash assistance on food security.

VIII. Feasibility

A. Components of necessary data collection include three types of data: access to administrative data on program use of individuals in the sample that can be linked to individual records; information on policies and programs by spatial categories (state and local communities) that can be linked via geographic information to individual records; and individual perceptions and reports collected of all sampled individuals and their families/households. Specifically this will require

1. Geocodes and state information on relevant policies and programs
2. A sample that can be generalized to states and to both rural and urban communities.
3. Individuals in the sample need to be asked about their knowledge, perceived eligibility, and use of programs in addition to measures of dependent and outcome measures of interest.
4. Links to administrative records, where feasible, will provide alternative and often more accurate measures of program use.
5. Participants need to be followed over time and place. Since policies and programs vary by location and by changes in public policy and private circumstance.

B. The study design needs to generalize to states and to community size with attention to rural-urban (not just metro-nonmetro) differences.

C. There are few obvious risks to collecting information on the independent variables.

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